

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-22. (Canceled).

23. (Previously Presented) A method of making an interconnectable package comprising:

providing a first wafer having a plurality of bottom die;

providing a second wafer having a plurality of top die;

patterning at least one transmission line on at least one side of said bottom die of said first wafer;

etching at least one integral connector and at least one transmission line on said top die of said second wafer;

coupling a component to each of said plurality of bottom die of said first wafer;

forming a wafer stack by bonding said second wafer to said first wafer such that said top die of said second wafer is aligned with said bottom die of said first wafer; and

dicing said wafer stack into a plurality of individual packets wherein each of said plurality of packets contains a top die having said integral connector bonded to said bottom die having a component.

24. (Previously Presented) The method of making an interconnectable package of claim 23, further comprising: etching an aperture in said top die of said second wafer such that said component may be placed through said aperture and coupled to said bottom die of said second wafer after the bonding and dicing of said first and second wafer.

25. (Previously Presented) The method of making an interconnectable package of claim 23 wherein a cap is bonded over said aperture after said component is placed through said aperture.

26. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the component is an integrated circuit.

27. (Previously Presented) The method of making an interconnectable package of claim 26, wherein the integrated circuit is a millimeter microwave integrated circuit.

28. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the component is an optical fiber.

29. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the component is an optical semiconductor.

30. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the integral connector etched on said top die of said second wafer is shaped as a male connection component.

31. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the integral connected etched on said top die of said second wafer is shaped as a female connection component.

32. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the integral connected etched on said top die of said second wafer is shaped as a hermaphrodite connection component.

33. (Previously Presented) The method of making an interconnectable package of claim 23, wherein the integral connected etched on said top die of said second wafer is shaped as a female connection component.

34. (Currently Amended) A method of making a dielectric package for housing a component ~~and having an integral connection component~~, comprising:

providing a first die, ~~said first die having an~~ comprising a first integral planar connection member ~~and having at least one a first planar conductor patterned on said first die thereon~~;

providing a second die ~~having at least one~~ comprising a second planar conductor patterned on said second die; and

bonding said second die to said first die such that an outermost planar surface of the first planar conductor on said first die is aligned is placed in planar contact with said an outermost planar surface of the second planar conductor on said second die and said integral connection member on said first die connects to said second die in a coplanar state, thus forming said dielectric package.

35. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, wherein the ~~single first integral planar connection component member~~ single first integral planar connection component member is formed having a male shape.

36. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, wherein the ~~single first integral planar connection component member~~ single first integral planar connection component member is formed having a female shape.

37. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 36, further comprising: coupling ~~a~~ the component to said first die prior to the bonding of the second die to said first die.

38. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, further comprising: etching an aperture into said second die.

39. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 38, wherein a the component is placed through said aperture on said second die and coupled to said first die after the second die is bonded to the first die.

40. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, wherein the component is an integrated circuit.

41. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 40, wherein the integrated circuit is a millimeter microwave integrated circuit.

42. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, wherein the component is an optical fiber.

43. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection component~~ of claim 34, wherein the component is an optical semiconductor.

44. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection member~~ of claim 34, wherein the dielectric package has a plurality of ~~connection components~~ integral planar connection members.

45. (Currently Amended) The method of making a dielectric package for housing a component ~~and having an integral connection member~~ of claim 44, wherein ~~the dielectric package having plurality of connection components includes~~ plurality of integral planar connection members comprise both female and male shaped connection ~~components~~ members.

46. (New) The method of making a dielectric package for housing a component of claim 34, wherein the bonding of the second die to the first die comprises sliding the first planar conductor and second planar conductor across each other until the first and second die are completely connected.

47. (New) The method of making a dielectric package for housing a component of claim 46, wherein the bonding of the second die to the first die further comprises aligning the first integral planar connection member on the first die to a second integral planar connection member on the second die whereupon the second planar conductor is provided.

48. (New) The method of making a dielectric package for housing a component of claim 47, wherein the alignment comprises alignment in a directions orthogonal to the direction of the sliding of the first and second planar conductors across each other.

49. (New) The method of making a dielectric package for housing a component of claim 47, wherein a course alignment is provided before the alignment by a course alignment plug and a course alignment socket, one of each of which is respectively provided on opposing portions of either the first or second die.

50. (New) The method of making a dielectric package for housing a component of claim 34, wherein the first and second planar conductors are at least partially held in the planar contact by a resilient member.

51. (New) The method of making a dielectric package for housing a component of claim 35, wherein the second planar conductor is arranged in a second integral planar connection member formed having a female shape corresponding to the first integral planar connection member.

52. (New) The method of making a dielectric package for housing a component of claim 36, wherein the second planar conductor is arranged in a second integral planar connection member formed having a male shape corresponding to the first integral planar connection member.

53. (New) The method of making a dielectric package for housing a component of claim 47, wherein the first integral planar connection member is formed in a male shape, and the

second integral planar connection member is formed in a female shape corresponding to the first integral planar connection member.

54. (New) The method of making a dielectric package for housing a component of claim 47, wherein the first integral planar connection member is formed in a female shape, and the second integral planar connection member is formed in a male shape corresponding to the first integral planar connection member.

55. (New) The method of making a dielectric package for housing a component of claim 34, wherein a plurality of the first planar conductors are patterned on the first integral connection member separated by non-conductive portions.

56. (New) The method of making a dielectric package for housing a component of claim 55, wherein a plurality of the second planar conductors are patterned on the second die to correspond with the plurality of first planar conductors.

57. (New) The method of making a dielectric package for housing a component of claim 35, further comprising coupling a component to the first die prior to the bonding of the second die to the first die.

58. (New) The method of making a dielectric package for housing a component of claim 35, further comprising coupling a component to the second die prior to the bonding of the second die to the first die.

59. (New) The method of making a dielectric package for housing a component of claim 36, further comprising coupling a component to the second die prior to the bonding of the second die to the first die.

60. (New) The method of making a dielectric package for housing a component of claim 34, further comprising etching an aperture into the first die.

61. (New) The method of making a dielectric package for housing a component of claim 38, wherein the component is placed through the aperture on the first die and coupled to the first die after the second die is bonded to the first die.